

tcVISION

IBM Mainframe Data Replication Through Change Data Capture

Fact Sheet

Mainframe data integration has taken on more urgency in recent years as organizations seek to replicate mainframe workloads on lower-cost platforms, modernize applications and leverage analytics, machine learning and AI, high availability, and advanced security for customer insight and competitive advantage. These factors are driving adoption of the Cloud as strategic components in corporate technology architecture.

tcVISION's support for Cloud and open systems targets are fully integrated alongside traditional Linux/Unix/Windows (LUW) targets such as Oracle Database, IBM DB2 LUW, Software AG Adabas LUW, IBM Informix, Sybase, Microsoft SQL Server, PostgreSQL and ODBC.

tcVISION can deliver replicated data to a wide array of targets through a variety of means: creating files, writing directly, and via streaming, such as using Apache Kafka as the transport layer to which the data can be packaged using standard JSON and CSV protocols.

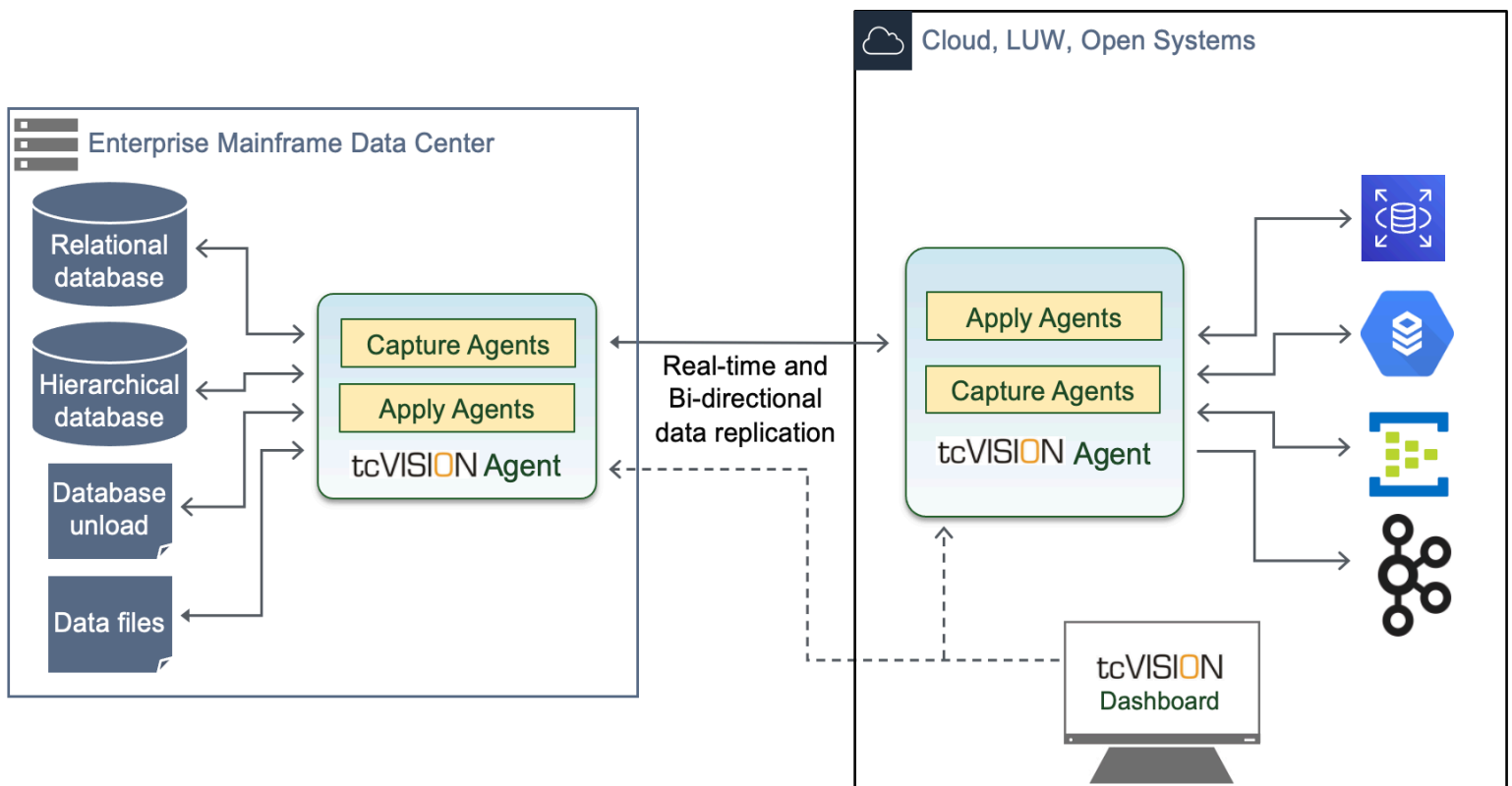
The tcVISION Solution

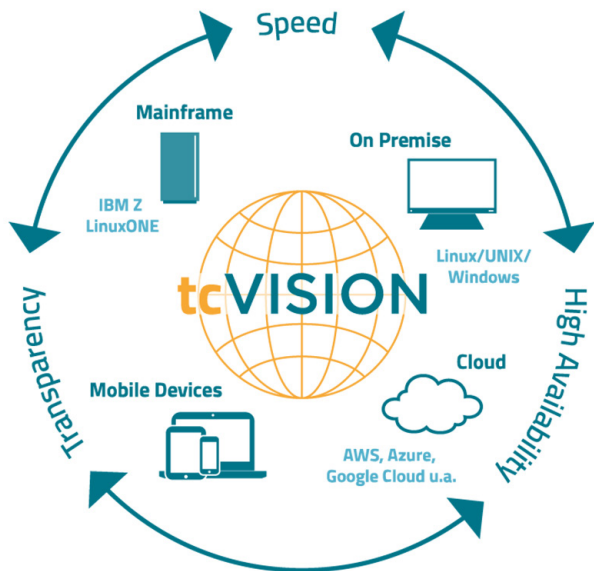
tcVISION is ready to meet new Cloud and open systems requirements, technologies, and challenges. Thanks to tcVISION's flexible architecture, support for a variety of targets is continually being developed, including AWS (RDS, Aurora, Redshift, etc.), Google Cloud (SQL, BigQuery, etc.), Azure (SQL, Event Hubs, etc.), Oracle Cloud, Kafka (Confluent, Amazon MSK, etc.), PostgreSQL, etc..

tcVISION focuses on changed data capture (CDC) when transferring information between mainframe data sources and Cloud, LUW, Open System databases and applications. Through an innovative technology, changes occurring in any mainframe application data are tracked and captured, and then published to the targets.

Why tcVISION?

- Increasing number of enterprise applications that utilize their own databases.
- Requirement for up-to-date information demands real-time, bi-directional data synchronization between mainframe and Cloud/open systems.
- Business globalization cannot tolerate interruptions in online systems – data exchange with batch-window limitations is no longer acceptable.
- The tcVISION replication solution's modular design supports mass data load from one or more sources to one or more targets, as well as continuous data exchange process in realtime.



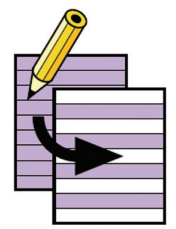


tcVISION – Technology

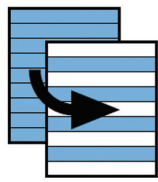
tcVISION considerably simplifies mainframe data exchange processes. The structure of the existing mainframe data is analyzed by tcVISION processors, then automatically mapped to a target data mapping. The data mapping information is presented in a user-friendly and transparent format – even for users with no mainframe knowledge.

The mapping information is saved in a metadata repository hosted on a relational database, and can easily be made available to other applications. The Windows-based Dashboard of tcVISION provides an easy-to-use facility to administer the data flow. tcVISION provides a variety of interfaces to allow seamless integration with ETL or EAI solutions.

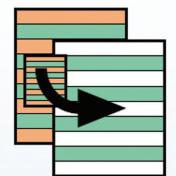
Change Data Capture Methods



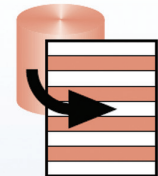
Logfile Analysis



Bulk Transfer



Batch Compare



DBMS Extension

tcVISION offers different CDC methods to identify mainframe and relational data. The change capture method deployed depends on the source database (CA-IDMS, DB2, VSAM, DL/1, IMS/DB, Adabas, IDMS/DB, DATACOM/DB, SQL Server, Oracle), the data volume, the volume of changed data and the required currency of the information. Changes are automatically transferred to the targets in time intervals or in real time by tcVISION data change publishing facilities.

tcVISION Change Publishing

tcVISION converts the captured changes to a format compatible with the target system. A target database can reside on a workstation or on Cloud, open systems, or Windows server (e.g., Oracle, SQL Server, DB2 LUW, etc.)—or another mainframe database (e.g., DL/1 -> DB2).

The transfer to the target system can be in various formats: SQL, Flat File, XML or any user-specific format that can be accessed by an API. It is also possible to insert the data into a message queue or to pass it to any ODBC target. tcVISION provides the user with enormous flexibility and guarantees openness for future technologies.

A powerful script language is available to implement automated data-exchange processes. Wizards and Drag & Drop technology enable usage of the script language with no need for training.

tcVISION – Benefits

With tcVISION, data synchronization between mainframe and Cloud and open systems pays off:

- Real-time replication of mainframe data enables real-time analytics and offloading mainframe application functionality (e.g., online banking queries, e-Government, etc.) to Cloud and open systems with data synchronized between the platforms.
- Replication costs are minimized as only changes are exchanged.
- Mainframe resource usage and costs are minimized.
- Data exchange processes can be designed, deployed and maintained with tcVISION without mainframe knowledge, providing cost savings, quicker delivery and project autonomy in modernization initiatives.
- Reporting and analytics applications are more comprehensive and valuable when mainframe data can be included in the Cloud platform.
- tcVISION supports bi-directional data replication, where changes on either platform are reflected on the other platform (e.g., a change to a PostgreSQL table in the Cloud is reflected back on mainframe), allowing the customer to modernize their application on the Cloud or open systems without disrupting the existing critical work on the legacy system.

Supported Environments

IBM-Mainframe:

IBM z/OS, z/VSE, z/Linux

Cloud and Open Systems:

AWS, Google Cloud, Azure, Oracle, Kafka, LUW, Open-Source